

Induction Demonstrations:

1. generators:

If I move a magnet near a coil of wire connected to LEDs, the LEDs light up if the magnets are moving fast enough - the one led light up if I move the magnet one way, 2 if I move the other. Crank generator: move a coil of wire in a set of horseshoe magnets while the class holds hands. Some students feel a shock, others not so much. It is a bit harder to turn the crank when there is a wire short circuiting.

2. Tesla coil near a fluorescent light.

- noise, the light lights up near the coil even though they don't touch. Sparks go to the ends.
- computer screen flashed and went out.

3. Solenoid with an iron core connected to wall socket - caused an aluminum ring to fly up.

4. Long copper tube - drop a penny down, it falls normally but if drop a magnet - falls very slowly.

For each demonstration, write a short

explanation with a diagram for next class.